

A map of Lake Tahoe is centered in the background. The lake is filled with a light blue color, and its irregular shoreline is outlined in black. The text is overlaid on this map.

# **Lake Tahoe TMDL Contractors Meeting**

## **Update on TMDL Development**

**December 12-13, 2002**



# Meeting Overview

- **Research Integration**
- **Scheduling Integration**
- **TMDL Update**
- **Research Updates**
- **Modeling Discussions**

# Purpose of Meeting

- **Provide opportunity for face-to-face discussion**
- **Identify data needs and opportunities for integration**
- **Align schedules**

**This is your Meeting**

# Research Integration

- **Review of key TMDL elements**
- **Summary of new projects**
- **New conceptual model**

# **Elements of a TMDL**

- ★ **Problem Statement**
- ★ **Numeric Target**
- ★ **Source Analysis**
- ★ **Linkage Analysis**
- ★ **Load Allocations**
- ★ **Margin of Safety**
- ★ **Implementation Plan**

# **New Research and Monitoring Projects**

- **Reconstruction of historic meteorology** – UC Davis
- **Loading of fine sediment** – Collective Effort
- **Stream channel erosion** – USDA National Sedimentation Laboratory
- **Groundwater** – US Army Corps of Engineers
- **Sewer line exfiltration** – US Army Corps of Engineers
- **Stormwater runoff monitoring** - Tahoe Research Group (TRG), Desert Research Institute (DRI)
- **Statistical analysis of loading related to land use characteristics** – Hydrokios Consulting, DRI, TRG
- **Watershed Modeling** – Tetra Tech Inc. and others
- **Biologically available phosphorus** – University of Nevada, Reno
- **Characterization and fate of lake particles** – UC Davis
- **Application of Clarity Model** – UC Davis
- **Stormwater BMP evaluations and implementation feasibility** – Geosyntech Consulting
- **Establish air quality monitoring network** – California Air Resources Board (CARB), TRPA and others
- **Characterization of air quality emission sources** – CARB
- **Modeling of atmospheric deposition to Lake Tahoe** – CARB
- **Nearshore water quality** – DRI
- **Data management** – TRPA

# Schedule Integration

- **Regional planning documents**
- **TMDL administrative timeline**
- **Research time table & project linkages**





# **Planning Documents to be Updated in Spring 2007**

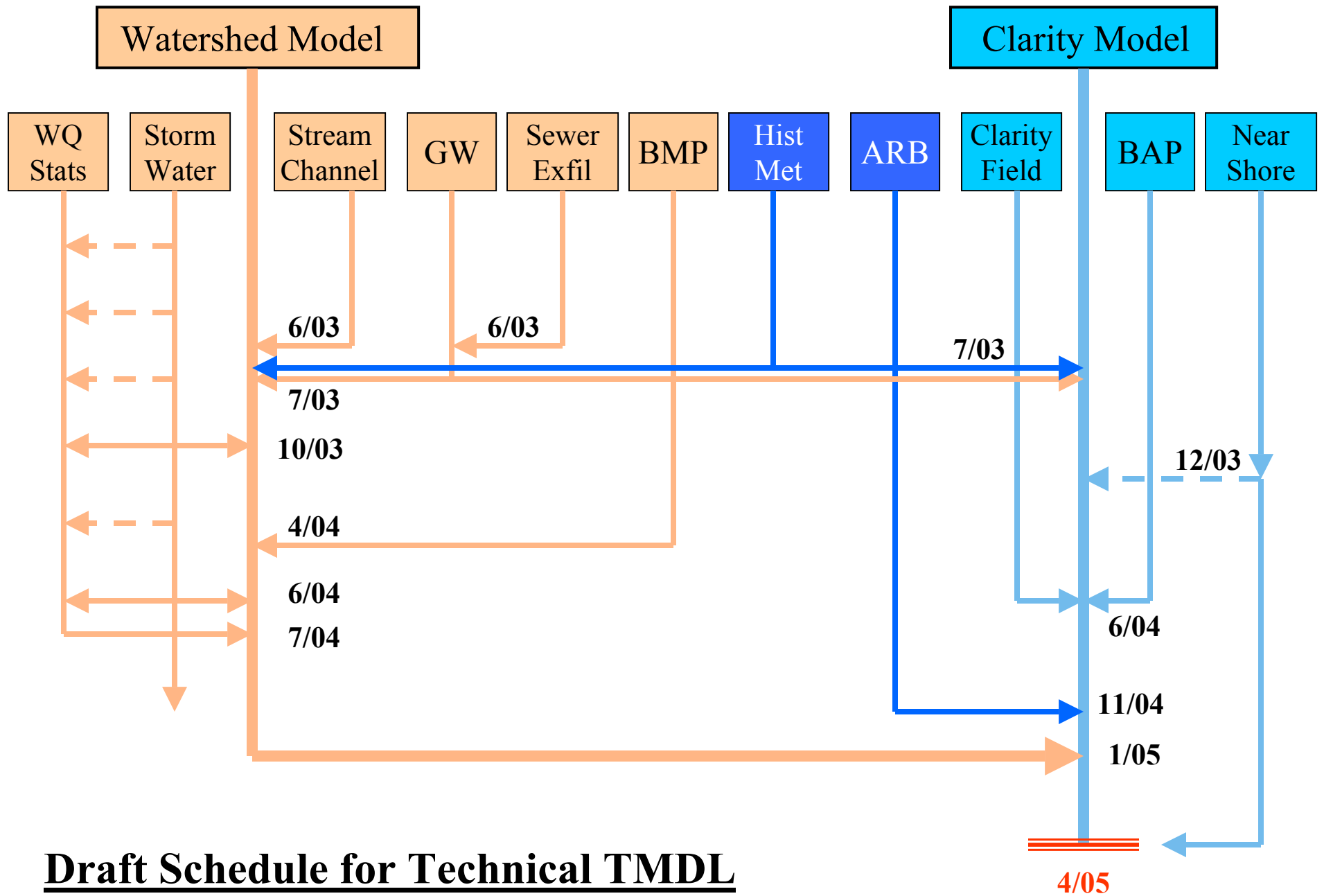
- **TRPA – Regional Plan**
- **Lahontan RWQCB – Basin Plan**
- **U. S. Forest Service - Forest Plan**

*It is anticipated that these documents will be updated with the use of information developed for the Lake Tahoe Nutrient and Sediment TMDL.*



## Lake Tahoe TMDL Project Timeline

	2002		2003				2004				2005				2006				2007			
TASK	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1. Research and Data Collection	7/02 - 5/05																					
1.1 Water Year 1	7/02 - 9/03																					
1.2 Water Year 2					9/03 - 9/04																	
1.3 Final Loading Data & Research											* 12/04											
1.4 Final BMP Data & Research												* 5/05										
2. Peer Review			1/03 - 5/03																			
2.1 Prepare Plan for Peer Review			1/03 - 2/03																			
2.2 Peer Review																						
2.3 Response to Comments																						
2. Technical Report	7/02 - 4/05																					
2.1 Develop Standard Language	7/02 - 4/03																					
2.2 Test TMDL ver. 1				7/03 - 4/04																		
2.3 Draft Technical Report									7/04 - 2/05													
2.4 Final Technical Report												* 4/05										
3. Implementation Planning			4/03 - 6/06																			
3.1 Outline Load Reduction Matrix			4/03 - 10/03																			
3.2 Stakeholder LR Matrix Develop.				10/03 - 5/04																		
3.3 Quantitative LR Matrix Develop.							4/04 - 4/05															
3.4 Develop LR Alternatives											5/05 - 6/06											
4. Final TMDL Adoption											6/05 - 12/06											
4.1 CEQA & Final Report Delopment											6/05 - 6/06											
4.2 Review Draft Final Report																						
4.3 Public Comment																						
4.4 Regional Board Adoption																						
5. TMDL Implementation																						



## Draft Schedule for Technical TMDL

(12/05/02)

**Technical TMDL Due**

# TMDL Update

- **TMDL progress**
- **Peer review**
- **Technical TMDL**



- **Contracting**
- **Outreach**
- **Development Sections**
- **Planning Integration**



# Contracting

- **All contracts are now executed**
- **Need for updated project timelines**
- **Technical TMDL still on schedule**



# Outreach

- **Public Meetings**
- **Individual Stakeholder Meetings**
- **Quarterly Newsletter**
- **Lahontan webpage**  
**[www.swrcb.ca.gov/rwqcb6/tmdl](http://www.swrcb.ca.gov/rwqcb6/tmdl)**





# TMDL Development Sections

- **Technical TMDL Development**

Section Lead - Jacques (Jack) Landy

- **Implementation/Allocation Planning**

Section Lead, Project Lead - Dave Roberts

- **Research and Data Collection**

Section Lead - Dr. John Reuter



# Planning Integration

- **Agencies need for planning integration**
- **Formalization of Pathway 2007 groups**
  - Management Team, Executives
- **Pathway 2007 goals**
  - Alignment of agency efforts and standards
  - Develop integrated and cohesive set of planning instruments that are supported and implemented



# Peer Review

- **Need/desire to do a peer review of TMDL approach, with emphasis on science plan**
- **Need to finalize draft science plan with more detail on individual scopes, project integration, modeling approach**
- **Need project timelines from each PI**
- **Discussions from this meeting will be used**
- **Mid-February time table**

# Modeling Discussions

- **Watershed and Clarity models are major pathways for information processing**
- **Most of the team will be providing input data/knowledge into these models**
- **Provide models what they require**
- **Major focus of this working meeting**

# Modeling Discussions (con't)

- **ID all information needs of model**
- **Establish sequential schedule of data needs**
- **Discuss sources of data (e.g. exists [form], part of TMDL research, part of other research, Tahoe-specific data not available, use literature values, resources need to be spent, etc.)**
- **Hierarchy for data selection - preferred vs. adequate vs. fall back**